**7-1 Final Project: Sprint Review and Retrospective**

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CS-250-T5477 Software Development Lifecycle

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June 18, 2023

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The success of the SNHU Travel project can be greatly attributed to the contributions and hard work of all roles within the Scrum-agile Team. The Product Owner specifically contributed to the project by holding a focus group with SNHU Travel’s users. Focus groups open the floor for individuals in this position to share their thoughts and opinions of how they believe the program should operate; this not only encourages communication between all parties involved in the project, a key element of the agile methodology, but it is also beneficial information for the Product Owner to receive and to share with the rest of the Scrum-agile team as it offers a clearer picture of the users’ vision and expectations for the program. The focus group for the SNHU Travel system assisted the Product Owner with creating user stories, an agile method used to define user requirements in a simple and succinct manner. The Product Owner took the feedback shared by the users and used it to identify which functionalities can be reasonably implemented and which are most important for the Scrum-agile team to focus their efforts on and complete before the next sprint. Further, the user stories broke the work down into smaller, more manageable pieces, this helped avoid larger errors and bugs in the program as well as made it easier to distribute the workload among all team members (Cobb, 2015).

As the Scrum Master for the SNHU Travel project, I was responsible for product development and coaching the team in adopting an agile mindset. To help the Scrum-Agile team be more effective and to create a foundation for the project, I developed a Team Charter. The Team Charter was used to briefly explain the SNHU Travel Project, define each person’s role in the Scrum-Agile team, and suggest some guidelines and best practices for effective communication among the team. Further, I led Daily Scrum meetings. The Daily Scrum, which is a type of Scrum Event, required each team member to discuss what they are currently working on and gave them the opportunity to share any challenges they might be facing; this inspired the team to work together to find solutions that align with their shared goal of producing a functional and successful product. The collaboration and transparent communication encouraged by the Daily Scrum meetings helped establish a positive work environment and played a major role in creating a strong, knowledgeable Scrum-agile team.

The team’s tester was also instrumental in the development of SNHU Travel. In addition to conducting the continuous testing required to keep the program error-free, the tester created test cases outlining the new features being implemented into SNHU Travel. The test cases were based on the functionalities noted in the Product Owner’s user stories and helped the development team to deliver the desired product by developing scenarios to meet the program’s acceptance criteria. To write the test cases, the tester used descriptive names detailing what will be covered in each test scenario, described the steps the user would take to complete the identified action, and indicated clear pass and fail measures for each step. When the tester needed more detail or had questions regarding the user stories, they showed great communication skills by reaching out to the Product Owner for clarification. In agile, the relationship between the tester and Product Owner is particularly important as they must work together to ensure their quality execution by defining and redefining user stories (Galen, 2016).

The contributions of the developer were extremely vital to the project’s success as well. The developers worked closely and collaborated continuously with the rest of the Scrum-agile team to deliver a functional final program. Specifically, the developers were responsible for creating project estimates and both the planning and execution of the product’s development. Because of the flexibility offered by the agile methodology, the developer was able to quickly adapt to any changes to the program’s plan; this was incredibly helpful when the client for the SNHU Travel project requested to modify certain functionalities. Like the tester, the developer showed their adoption of agile best practices by communicating with the Product Owner and tester to get any further information they need to move forward with development under the new plan.

The Scrum-agile approach to the Software Development Lifecycle (SDLC) helped each of the user stories come to completion by encouraging open communication between SNHU Travel’s end users and the Scrum-agile team. Through the focus group hosted by the Product Owner with SNHU Travel’s users, the Scrum-agile team was able to develop a richer understanding of how the requested functionalities should work to be deemed successful by the consumer. The user stories were written using functional terminology to clearly define what each functionality should do. For SNHU’s user stories, the Product Owner wrote brief statements capturing the role of the person requesting the functionality (the who, which in SNHU Travel’s case was the end-user), what they are looking to achieve with this functionality (the what), and why they believe this functionality will be valuable to them (the why). For example, when the Product Owner asked the users in the SNHU Travel focus group what they wanted to see implemented into the system, they all agreed that it would be useful to have a profile setting that allows them to choose the types of vacations they want to see recommendations for on the site. From this feedback, the Product Owner created the following user story: “As a(n) <end user> I want to <click a link to update my profile settings> so that I can <select the type of vacations that interest me and that I want to see more recommendations for>.” The information provided in user stories such as the one mentioned was critical in seeing the SNHU Travel program from the user’s perspective and creating a more clear-cut path to effective product development.

As noted earlier, the Scrum-agile approach allows for more project flexibility and so when the SNHU Travel project was interrupted and changed direction during its development, it was much easier for the Scrum-agile team to transition their focus with less overall risk to the program. Because the Scrum-agile methodology prides itself on embracing change rather than avoiding it, the developer was able to be flexible in their approach to development. When working with an agile project, requirements for a program are only loosely defined at the beginning and there is an understanding by all involved that the requirements are subject to change as the project evolves; this differs from a waterfall method, which rigidly defines requirements and project expectations upfront. To implement the changes in SNHU Travel, the developer worked with the product owner and tester to update any existing user stories and test cases to reflect the requested modifications.

As Scrum Master, my ability to effectively communicate with the rest of the team was deeply important to the SNHU Travel project. Scrum Events, such as the Daily Scrum meetings I held proved to be especially valuable by boosting team engagement and encouraging group collaboration. In the Daily Scrum, I communicated with the team by requiring each team member to answer three specific questions: What did I do yesterday to help meet the sprint goal? What will I do today to help me meet the sprint goal? What impedes us from meeting the sprint goal (James, 2020)? Answering these questions helped track the progress made in each Sprint as well as brought everyone’s awareness to where the group was exceeding or falling short in the project; this technique instilled a sense of ownership in the team members by creating a standard set of rules and guidelines for the project.

All Scrum Events, including the Daily Scrum, had a significant impact on the team and the outcome of the project. Scrum events such as Sprint Planning meetings, Daily Scrum meetings, Sprint Review, and Sprint Retrospective, utilized a combination of organizational tools and Scrum-agile principles to lead the team to success. The Sprint Planning meetings took place prior to the start of each sprint and gave the Product Owner and Scrum-agile team the opportunity to organize the project by prioritizing the product backlog and deciding together what user stories could reasonably be taken into the next sprint.

The Daily Scrum meetings, sometimes referred to as the Daily Standup, kept everyone working on the project on the same page by monitoring progress and helping to detect any potential roadblocks being faced in the current sprint. While some Scrum-agile teams may use a whiteboard or blank wall in an office space to track the project’s progress, the Scrum-agile team working on the SNHU Travel program referred to an online agile project management tool known as JIRA. Through JIRA, a digital Scrum board was set up to display columns of selected project issues, each column representing a step in the team’s workflow that must be completed. The Scrum board provided the team with a shared view of the work that had yet to be started, the work that was in progress, and the work that had already been completed (Atlassian, 2023). The board also allowed all team members the ability to rapidly update and view the status of each step within the project; this supported a continuous workflow and open communication among everyone involved.

The Sprint Reviews gave the Product Owner a chance to do a formal review of all the items included in a sprint. During this review, which would happen at the end of every sprint, the Product Owner would look at the finished work presented by the Scrum-agile team and decide whether it could be approved. SNHU Travel’s stakeholders were also included in these Sprint Reviews to provide feedback on the work accomplished by the team, this helped to ensure that the project was moving in the right direction and that the insights of the client were kept in mind while the program was being worked on.

Much like the Sprint Reviews, the Sprint Retrospectives conducted throughout the project were a great opportunity for the team to review each sprint. By reflecting on the work done in a sprint, the team was able to identify what went well and what could’ve gone better. Through Sprint Retrospectives and the discussions surrounding lessons learned, the team was able to continuously improve their processes and adapt them to best fit the project and environment, key principles of the agile methodology.

The Scrum-agile approach was extremely effective in securing a successful outcome for the SNHU Travel project. The advantages of an agile approach were very clear from start to finish; it unified the team by aligning them with a shared goal of delivering a functional final program, allowed more room for flexibility and adaptivity, and ultimately improved the product’s quality. The Scrum-agile approach required the team to have an all-hands-on-deck attitude, this motivated each team member to feel a sense of personal ownership of the project and kept everyone accountable for their work. The accountability aspect of the Scrum-agile approach guaranteed that the work was done on time and that everyone’s best effort was put into their contribution to the program. The flexibility offered by the Scrum-agile framework was evident when SNHU Travel’s management requested changes to the functionalities being implemented into the system. Since the agile methodology allowed the program requirements to be defined very simply at the beginning of the project, it wasn’t detrimental to the program for the team to switch gears and re-evaluate the work to be done. The Scrum-agile approach improved the quality of the product by involving the client, users, and stakeholders, nearly every step of the way. Getting continuous feedback as the development of the program progressed helped the team to ensure that their work met the client’s expectations and vision for the project. Further, keeping everyone on the Scrum-agile team ingrained in every step of the process helped to make sure that no work fell through the cracks and that there was a shared responsibility to deliver a successful final program. A disadvantage of the Scrum-agile methodology is that it can be difficult to transition to when a team is used to utilizing more traditional approaches to project management, such as the waterfall method; this can either be due to a team’s resistance to change or a general misunderstanding of agile processes. Because the initial transition to agile from a traditional method can be challenging, it is important that the team has a Scrum Master on board to act as an agile coach and source of knowledge for those new to the framework. The Scrum-agile approach was the best approach for the development of SNHU Travel because it helped the team structure and manage their work in a manner supportive of delivering the highest value to the client. If a waterfall method had been applied instead, it would’ve been much more time-consuming and less cost-effective for the team to address any changes to the plan for the program. Since the requirements would’ve already been rigidly defined at the start of the project, SNHU Travel management’s request to change the focus of the program in the middle of a sprint might’ve either caused larger, hard-to-fix errors to occur within the program or might’ve been impossible to implement. The Scrum-agile approach avoided these issues by creating an environment in which the team could adapt.

**References**

Atlassian. (2023). Jira software boards introduction. *Atlassian.com*, 1. https://www.atlassian.com/software/jira/guides/boards/overview#what-is-a-jira-board

Cobb, C.G., (2015). The project manager’s guide to mastering agile: principles and practices for an adaptive approach. *Wiley*, 1. https://web-p-ebscohost-com.ezproxy.snhu.edu/ehost/ebookviewer/ebook/bmxlYmtfXzkzNzAwOV9fQU41?sid=1b082605-df40-4ff2-aae0-812f2db6d8cc@redis&vid=0&format=EB&rid=1

Galen, R. (2016, October 3). Scrum product ownership. Scrum Product Ownership (2nd edition), 1. <http://www.scrumexpert.com/knowledge/scrum-product-ownership/>

James, M. (2020). *Daily scrum* [Video]. Scrum Training Series, Part 4. https://scrumtrainingseries.com/DailyScrumMeeting/index.html